



Facts

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Protecting ruminant animal feed from BSE contamination

Bovine Spongiform Encephalopathy (BSE), sometimes called "mad cow disease," has been reported in cattle in 20 European countries, Israel, Japan, Oman, the Falkland Islands and Canada.

What is BSE?

BSE is one variety of a rare group of diseases known as transmissible spongiform encephalopathies (TSE's). TSE's cause microscopic holes in the brain, giving it a sponge-like appearance under a microscope. TSE's are always fatal, and affect both humans and animals.

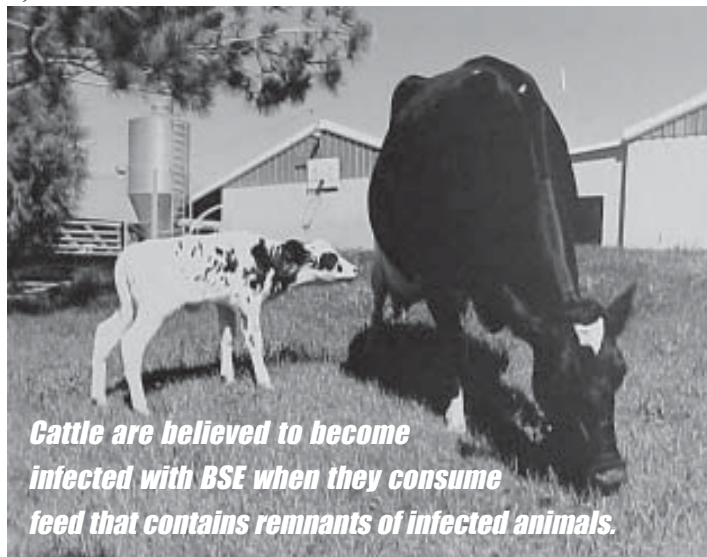
How do animals get BSE?

Scientists believe cattle are infected with BSE when they consume feed that contains remnants of infected animals. In cattle that have BSE, about 98 percent of the infection is found in the brain, spinal cord, dorsal root ganglia and eye. Infectious material has not been detected in muscle tissue or milk.

The most common form of human TSE is Creutzfeldt-Jakob disease (CJD). Scientists believe a variant form of CJD is caused by consuming the brain and spinal cord of animals infected with BSE.

Isn't animal feed heat processed?

The material is cooked during the rendering process, however, BSE can survive temperatures in excess of 1,100° F.



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Has BSE reached the U.S.?

No. The U.S. Department of Agriculture (USDA) began searching for evidence of BSE in this country in 1990. During fiscal year 2002, 19,900 brain tissue samples were evaluated for BSE from cows that can't walk, cattle exhibiting central nervous system disorders and cows that died unexpectedly on farms. All have tested negative for BSE.

Extensive testing of high-risk cattle and animal quarantines will prevent BSE from spreading if it is found in the U.S.

How is BSE kept out of the U.S.?

To keep BSE out of this country, USDA prohibits importing all ruminants and rendered animal products from countries with BSE. Ruminants are animals with four stomachs that chew their cud, such as cattle, sheep, goats, deer and bison.

A 1997 FDA rule makes it illegal to feed protein derived from mammals to ruminants. The only mammalian proteins that may be used are milk products, blood products, gelatin, pure pig and horse protein, and inspected meat products cooked and offered for human consumption and further heat processed.

FDA's ruminant feed rule requires all animal feed products, except pet food, that contain prohibited materials to be labeled ***Do not feed to cattle or other ruminants.***

Companies must keep records about the source of material used in feed and its distribution and written procedures to prevent cross-contamination of ingredients. FDA's enforcement plan includes education and inspections.

To further reduce the chance of prohibited materials being included in ruminant feed, inspections have taken place at traditional feed mills, rendering plants and salvage feed operations. More than 19,000 inspections have been conducted with a compliance rate of 99 percent. If violations are found, regulatory action is taken.

FDA prohibits the use of nearly all mammalian protein in ruminant feed.

Exceptions include:

- ***Milk products***
- ***Blood products***
- ***Gelatin***
- ***Pig and horse protein***
- ***Meat products offered for human consumption and further heat processed***

Protect your cattle from BSE

No case of BSE has ever been reported in the U.S. Let's keep it that way. State and federal feed officials are inspecting all companies that supply feed for ruminants. You can help by ensuring that the feed you give cattle or other ruminants contains no prohibited mammalian protein.

Read the labels on feed packages and obey the cautionary statement, ***Do not feed to cattle or other ruminants.***

Food intended for dogs, cats, fish and other pets often contains mammalian protein. Pet food labels are excluded from the required cautionary statement. Therefore, keep pet food away from ruminant animals. Talk to feed suppliers to ensure they are following the rule.

FDA requires ruminant producers to keep feed labels and purchase records of all feeds that contain animal proteins for at least one year. We have an opportunity to protect U.S. beef, but we need your help. One isolated, undetected case of BSE could be spread throughout the industry if the infected animal is processed into cattle feed.

After the first case of BSE was identified in the United Kingdom in 1986, the disease was declared an epidemic in cattle herds throughout the country. Enormous animal health problems and devastating economic losses followed.

There are human implications, too. To date, in the United Kingdom 135 people have died or become ill from variant CJD. Another six cases were diagnosed in France and one case each in Canada, Ireland, Italy, Hong Kong, and the U.S. Each person that died in non-European countries had lived in the U.K. for several years. For more information, visit http://www.doh.gov.uk/cjd/cjd_stat.htm.

BSE confirmed in Alberta, Canada

U.S. bans cattle and ruminant products from Canada

On May 20, 2003, the U.S. closed its borders to imports of Canadian cattle after a single case of BSE was confirmed in a cow from Alberta.

The ban covers live cattle and other ruminants, most ruminant products, and all feed containing animal protein. Milk is excluded from the ban and may be imported.

Canadian officials destroyed the entire herd and tested the animals for BSE. To date, no other cases of BSE have been confirmed. For up-to-date information related to the Canadian case visit the following Web sites:

- Canadian Food Inspection Agency <http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/bseesbindexe.shtml>
- U.S. Food and Drug Administration Import Alert http://www.fda.gov/ora/fiars/ora_import_ia9925.html
- U.S. Department of Agriculture <http://www.aphis.usda.gov/lpa/issues/bse/bse.html>

Examples of prohibited mammalian materials

The Code of Federal Regulations (Title 21 Part 589.2000) prohibits the use of mammalian protein in ruminant feed except: milk products, blood products, gelatin, pure pork and horse protein, inspected meat products cooked and offered for human consumption and further heat processed.

Ruminants are animals with four stomachs that chew their cud, such as cattle, sheep, goats, deer, elk, and bison.

The 2003 Official Publication of the Association of American Feed Control Officials defines the following mammalian protein sources as prohibited unless derived from pure pork or horse:

- Animal digest, animal liver, animal by-product meal, glandular meal, extracted glandular meal, fleshings hydrolysate.
- Meat, meat by-products, meat protein isolate, meat meal, meat meal tankage, dried meat solubles.
- Meat and bone meal, meat and bone meal tankage, cooked bone meal.
- Steamed bone meal, cooked bone marrow, mechanically separated bone marrow.
- Hydrolyzed hair, hydrolyzed leather meal, stock, broth, unborn calf carcasses, food processing waste, restaurant food waste.

Where can I get additional information?

FDA's Center for Veterinary Medicine offers the following information on animal proteins prohibited from animal feed.

- *Small entity compliance guide for producers with on-farm mixing operations* (Guidance for industry document 69)
- *Small entity compliance guide for producers without on-farm mixing operation* (Guidance for industry document 70)
- *Small entity compliance guide for renderers* (Guidance for industry document 67)
- *Small entity compliance guide for protein blenders, feed manufacturers, and distributors* (Guidance for industry document 68)

Copies of these Guidance Documents are available from FDA on the Internet at <http://www.fda.gov/cvm/guidance/guidance.html>, by phone at (301) 594-1726, or by mail at Food and Drug Administration, Center for Veterinary Medicine, Division of Compliance, 7500 Standish Place, HFDV-230, Rockville, MD 20855.

Additional publications and links to other Web sites are available on WSDA's BSE web page at <http://agr.wa.gov/FoodAnimal/AnimalFeed/BSE.htm>.